Mobile media architecture: Between infrastructure, interface, and intervention

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Abstract

The category *mobile media architecture*, mobile design between "media" and "architecture" consists of urban interfaces: digital screens used in urban public space, often in conjunction with location-based and/or mobile media technologies. These interfaces intervene temporarily, yet fundamentally, in the city's built environment. I consider the spatiotemporal logic of two installations that challenge more traditional ideas of spatial design and architecture as fixed, stable, and permanent: the selfie pillar as example of (temporary) urban advertising and narrowcasting, and the art project *The Bridge*, designed for a traveling screen. These very different examples of urban screens both construct temporary and mobile architectures for spatial extension and connectivity. In so doing they demonstrate an intersection of architectural and cartographic logic. This twin logic is inherent in the intersection of spatial design (architecture) and mobile and location-based technologies that offer tools for spatial orientation (cartography). Between infrastructure, interface and intervention, these forms of mobile media architecture exemplify our current visual regime of navigation.

Keywords: media architecture, urban interfaces, mobility, connectivity, presence.

Introduction

In this essay I take up the question of the specificity of the media aspect in our conception of the media city as a contemporary, (relatively) new phenomenon. As Scott McQuire (2008) has shown in his genealogy, the history of the media city is intertwined with the development of modern media technologies, and in the most current phase marked by the convergence of screens and other visual displays and pervasive, digital communication technologies. Following his historical perspective, I am particularly interested in today's influence of mobile and/or locative media technologies on the connection between the structures and design of urban spaces, site specificity, and the mobility that urban culture implies. For this perspective on the culture of media, the essential properties of these technologies matter less than the specificities of the cultural practices at hand: how do these media technologies offer affordances for a dynamic interplay between subject, technology and public space, and as such operate as urban interfaces?

We can think of movement or temporality in structures – in media *in* and *as* architecture – in many different forms. Think of the array of commercial, casual, and playful media forms that we also encounter in today's cities, but also recalcitrant art projects, ambitious light pollution effects, and social neighborhood rehabilitation projects. Architectural forms of media range from urban screens that mount screens onto facades; video mapping projects that overlay material surfaces with playfully moving light;

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fluid architectures that turn buildings into moving structures; perhaps even site-specific performances and temporary installations that turn architecture into scenography. What are the consequences of these dynamic interfaces that are site-specific and mobile, architectural and dynamic, and essentially performative?

Key words for this approach to the media city, then, are transformation, mobility and connectivity. These terms are about how media make urban spaces – and our practices within and experience of these spaces - change. Transformation itself lies at the heart of these technologies. They intervene in the stability of the built environment and make it appear fundamentally different from other times. Indeed, more important than the perceived novelty of new and "innovative" screens and interfaces themselves is the way they affect our sensibility. Paradoxically, we are becoming more and more sensitized to the (possible and/or perceived) changeability of the environment. Specifically, spatial design and urban architecture participate in the mobility- and connectivity-based experience of living and walking in the city. They add to, build on and shape urban mobility. As such they are part of the infrastructure of the media city. Michel de Certeau (1984) already analyzed the everyday practices of navigating the city long before the current ubiquity of digital technologies. His study mapped our relationship with the urban environment and how we move around within its structures. He suggests that the spatial practice of walking is "to an urban system what a speech act is to language" (p. 98). The current situation would probably have amused, astonished and even inspired, but not shocked him. To get closer to what this relationship between design and interfacing as spatial practice entails I consider this as a question of presence and connectivity - the "between places" or a "cartography of connection" – as an architectural issue.1

My interest in the current buzzword of the new, in other words, the drive for innovation is both theoretical and critical. Ambitions to develop new platforms for urban publics are striking. We can find examples in the way museums try to engage new publics within or outside the walls of their institutions, or in current smart city projects (and rhetoric) built on ideals for civic participation. These ambitions are often based on ideals of interactivity and connectivity. These aspects are perhaps the two main hallmarks of the promises of digital culture. They distinguish media architecture from stone-and-wood buildings. Our fascination with technology is historically embedded. It is coupled with an equally historical social ideal of participation in a strong mix of innovation and creativity. However enticing, this ideal also asks for (or demands, in my opinion) an analytical grasp of *how* these works of techno-spatial design activate such an interactive and connective potential. Ultimately, in the context of the city as cultural and social environment, we must understand how they contribute to our sense of "presence." That is important because I see presence as central in the crossing of urban infrastructures, techno-based interfaces, and the possibilities for people to make interventions.

For this connection between infrastructure, interface and intervention, I look at the way techno-spatial design is *performative*: how it shapes the way we act. Architecture and spatial design inscribes space and thereby transforms it. This is how it is performative. We act differently in a small, domestic house than in a monumental and perhaps even intimidating public building. Whether we go home to relax or to the doctor's with an anxious mind makes us experience the buildings very differently. The presence of

¹ Between de Certeau and today's research community I like to think of Francesco Careri, *Walkscapes: Walking as an aesthetic practice* (2002) or more recently, Karen O'Rourke's *Walking and mapping: Artists as cartographers* (2013).

windows, the surface of walls, the emptiness or fullness of furnished rooms: all this determines how we experience the space and consequently act in it, and vice versa. The space produces our actions because it acts on us. This performativity is first of all, literally, the question of what design *does*.²

This is how the three terms that underlie my inquiry in this essay connect: infrastructure, interface and intervention together define what media cities are. Note that the preposition "inter-" is present, and I contend, centrally important for all three. Also "infra" in infrastructure points to the underlying facilitation of interrelationships; we can even call it "inter-structure" to keep this in mind. For, "inter-" means connection and reciprocity, in all its uses. Just think of internationality, interdisciplinarity, or Internet. Infrastructures comprise the assemblages of technologies and materials, such as buildings, media, and screens, that structure mobility and offer potentials for cultural practices of connecting. Interface, next, refers to the places where we connect within this space - with materials, technologies and with one another. Interventions, finally, are what this interfacing may bring about within that infrastructure, by means of that interfacing. Historically connected to the late-1960s and 1970s political movement in art and performance that aimed to radically change public space, today's interventions can be thought of as temporary public happenings or "interactives" that by offering sites for experimentation and interaction afford forms engagement and critical thinking. This is the transformative potential of doing that is at the heart of interfacing: a possibility (not guarantee) for critical participation. I think the relationship between these spheres is important when we speak of media architecture. Because, while we are surrounded by materials, technologies and structures, it is the performativity of our interfacing with and within that space that matters.3

For this perspective on the performativity of design I build on my analysis of the spatial and time-based logic of mobile screens and urban, navigational practices. Here, I align this logic with the transformative and interactive affordances of spatial design and architecture. I have now established a context where mobility and connectivity help produce a sense of presence thanks to the performativity in infrastructure, interface and intervention. Within this context, I propose we look at temporary and mobile infrastructures of location-based but migrating set-ups or installations. Thus we can understand how they are designed as public interventions with innovative and transformative ambitions. In the following I zoom in on projects that use screens in urban space specifically designed to connect different spaces. In the shaping of meeting places, they make a fluid architecture of sorts. As temporary infrastructures they demonstrate a cartographic logic. I see this logic as inherent in location-based media technologies and mobile practices. And, in line of the wider argument of my work, this is a logic that exemplifies a currently pervasive trope of mobility and navigation in urban spaces.

² The performativity of architecture, and what has been termed performative architecture, has been taken up in architecture theory as well as urban and spatial design. For this understanding of architecture, see for example Kolarevic and Malkawi (2005) and Sam Spurr (2007). In her recent, brilliant dissertation on nomadic theatre (2015), Liesbeth Groot Nibbelink theoretically expands the notion of performative architecture from the perspective of staging and scenography.

³ For a fuller discussion of the meanings of "inter-", see Mieke Bal's essay on what she calls inter-ships (2013). About "interventions", "interventionists", and art and activism in public space, see for example Cher Krause (2008), Robert Klanten and Matthias Huebner (2010), and Gregor Sholette and Nato Thompson (2004).

Mobile media architecture

If architecture is both the process and product of the planning, design and construction of the built environment, or urban space, then the concept of media architecture appears to have a conceptual problem. The problem is that there are no fixed material structures that result from such (media) architectural acts. This is, however, an asset instead of a problem when we consider that precisely the distinction between process and product is dissolved in media use. Hence, it is a paradox rather than a contradiction. Paradoxes are productive structures of thought; they raise questions and question thought. They are only apparently contradictory, while in fact they point at the essence of *inter*section: in this case the intersection of space and time – of structure and movement.

For example, projections and video mapping, sensing technologies, kinetic or light-emitting facades extend the buildings not only in temporal and spatial terms, but also extend the haptic qualities and relational properties of their materiality. These works transform and remake the buildings they engage, even if the materiality of the structures remains intact. Thereby they fundamentally intervene in our standard conception of perception as an act of the eye only. Indeed, these works emphasize how architecture in its performativity makes us look back to a building in a way it solicits. Moreover, media architecture has a fundamentally haptic quality. This quality makes looking with the eyes only impossible, for it entices us to (wish to) actually feel the surfaces and the space itself. It does this by "addressing the human body and its dimensional relationships" - as Matthew Claudel of MIT's SENSEable Cities Lab has recently phrased it (2014). Also, the extension of materiality and structure performed through projections of light and movement can de-familiarize public space and appear to temporarily overrule the stability of architectural structures. However, paradoxically, as Thorsten Bauer has pointed out, these projections in fact need the stable structure underneath them to have this effect. Bauer speaks of an "after image" that spectators may have of the original structure (2012, p. 60). This is an extension of structure performed through light only, but with an impact that exceeds the façade alone. They de-familiarize public space and appear to overrule the materiality and fixity of architectural structures.

However, these projects also demonstrate the opposite. As soon as lighting technologies are used to modify the visual appearance of a building, the light becomes part of it. Overlayering the façade, and as such making that façade into something else, light becomes part of the new architecture, and thus, as a medium it shows its material hand. Indeed, exploring this materialization of light is the life endeavor of the work of Belgian artist Ann Veronica Janssens. She sometimes uses very simple, sometimes very complex technologies to make her point that light is indeed material. She fills chambers with colored mist, for example. What such light projects demonstrate, and their predecessors have demonstrated all along, is that what we see is not what *is* but what *appears*. Solid as the building may be, our relationship to it changes. These examples attest to an expanding field that includes difference in the status of materiality, of "structure" and process as the product of design.⁴

⁴ About Janssens' work, and in particular her use of light, see Mieke Bal (2013).

Urban interfaces and their subjects

Let me now zoom in on the intersection of cartographic and architectural logic in the way urban interfaces make connections - to other places, other realities, and especially, other people. The portals and bridges to elsewhere are here considered as architectural in order to foreground their congeniality as concepts with the idea of the architectural. In my work on cartographies of mobile and location-based media, or urban interfaces, my perspective on architecture as material design draws on this interplay of product and process. This is inherent in design as the interlocutor between technology and practice. Researching the cultural use of mobile and location-based technologies, it is design that we hold in our hands and design within which we move. It becomes impossible to think of cartographic practices of mobile technologies without including the architectural aspect of design. Both are practices of space making and embedded within connections between infrastructures, interfaces and interventions.

Central here is the space-making, moving, acting and perceiving subject. In other words, people. This centrality calls for a rethinking of terminology. In media theory we tend to call subjects spectators or users – problematic terms as the former suggests passivity and the latter consumption and instrumentalism. Moreover, both imply fixity of the object, and the former also of the subject. This subject has also been called "participant" in more interactive or collaborative endeavors. This term is currently both widely used and also contested. A partnership is implied, yet not unproblematically so, because it is an unequal relationship. For this reason, in an attempt to convey the particularly active relationship with the interfaces used, I have myself proposed elsewhere to use the term "engager" (see also the work on "engagement" by Sihvonen & Cnossen in this special issue). The public I am talking about is indeed active; they are (co-)performers. And in the context of mobility and mobile practices in public space, we are navigators – we move around at will, albeit within the limits and constraints of the infrastructure. And because there are obvious power structures in place in infrastructures – just think of traffic lights and the penalization of their transgression, surveillance cameras, and much more – we must acknowledge that there is also regulation at work.

Such searching for the right term is not a futile academic exercise. It demonstrates the implications of the choice for certain concepts over others. Concepts are already mini-theories, implying presuppositions that guide further thinking. More importantly than the introduction of a new term, we must not lose sight of any of the aforementioned aspects of the people who use, see or engage the urban space. For now I depart from the idea that the notion of the urban public comprises these aspects of spectatorial perspectives, forms of agency and participatory possibilities, navigational mobility, and performative potentialities. Moreover, taking into consideration this public, the people who see, act, encounter, perform and move, helps us focus on the overlap between architecture and cartography: the mobility of structure and design in architecture as interwoven with the mobility of navigation in cartographic practice.

In order to analyze the performativity in encounters with (mobile) media architecture, let's look at two very different examples – one firmly embedded in a commercial infrastructure and one mobile, playful and

⁵ I am indebted to Karin van Es for the use of this term. I want to suggest this as more appropriate for describing the relationship between "users" and interactive screen-based technologies. Besides having a use value, such technologies clearly also entail modes of spectatorship.

artistic. For the first category, I will take the phenomenon of the selfie pillar – a camera-screen combination or terminal that allows people to take and send selfies from a specific location. This turns the old-fashioned photo booth into a selfie machine for narrowcasting. I allege a recent example from Rotterdam by the commercial media company Plustouch. It uses an emblematic micro-architecture of commercial advertising pillars in public space that are fixed yet dynamic, monotonously showing commercial images. In this case, however, instead of using the screen as a display window for commercial messages, an added camera and Internet connection allows the passing public to use the screen as a mirror, to take selfies, and to send them or upload them to a website.

For an example of the latter category, the playful and temporary set-up, let's look at *The Bridge* – a recent project of the traveling urban screens of Dutch-based mobile media platform Dropstuff. Traveling around in Europe, the screen can be been seen at temporary public spaces such as festivals, and on public squares in Amsterdam, Paris, Venice, Antwerp, and other cities. *The Bridge* – a name that metaphorically invokes the architectural symbol for connection – makes a video link between different European cities. A recent installation was set up between Stockholm and Amsterdam for the occasion of the 400th anniversary of diplomatic relations between Sweden and The Netherlands.⁶

Figure 1. Bi-locational ballet at the opening of Dropstuff's *The Bridge* (2014), on location in Stockholm (Sweden) and The Hague (the Netherlands).



Source: Dropstuff, 2014.

The opening presented a pas-de-deux, a duet between two dancers in both countries, connecting on screen. This coordination between the far-removed screens occurs with different forms and aesthetics, through video streams, animated game spaces or abstract, colorful visualizations. This particular set-up of

⁶ This can be seen as a smaller-scale and more casual version of the project "Large Screens and the Transnational Public Sphere" (2009–13) that made a connection between large screens in Melbourne and Seoul, as also discussed by Vuolteenaho, Leurs and Sumiala in the introduction to this special issue. For more about this project, see Papastergiadis, McQuire et al (2013). Another early smaller-scale example is the Hole in the Earth installation from 2001, connecting Shanghai and Rotterdam. See http://v2.nl/archive/works/hole-in-the-earth for more about that work.

Dropstuff as mobile infrastructure establishes a temporary architecture based on connection in a different way from the selfie pillar. Yet there are some similarities as well.

Figures 2 and 3: Waving and posing on the Dropstuff screen and the selfie pillar by Plustouch.





Images: Dropstuff, 2014; Plustouch, 2014.

While obviously coming from a different framework, both projects work with location-based technologies, both function in an urban and mobile framework, and both play with presence, connection, and extension. They do this via both online and offline localities, or perhaps in Eric Gordon's terms of "network localities" (2009), or as interfaces between "internet" and "outernet" of which Susa Pop speaks in reference to some media architectural projects (2012, p. 42). Both, albeit playfully, are premised on, and as such investigate the logic of media or screen-based communication, in particular through the complexity of location. For now, let's look at the aspects of presence, extension and connection.

Making Presence

The presence of the public – here, the shopping public – is a condition for the selfie pillar to make any sense at all. An interactive technology needs encounters between the interface and its other face; here, that of the individual within that public. In a truly McLuhanian fashion – "the medium is the message" – the snapshots taken by the present user flaunt this presence with an additional pre-scripted message, "greetings from Rotterdam." This is an emblematic, postcard-like statement of "I am here" that becomes "I was here" when sent. Banal as this message sounds, it is a statement of deixis, but of a specific kind.



Figure 4. Greetings from Rotterdam.

Image: Plustouch, 2014.

As I have explained elsewhere (2012, p. 55), the linguistic term deixis explains how language and other semiotic utterances are context-dependent. In fact, as Émile Benveniste (1971) has proposed, deixis and not reference is the essence of language, and this is also the case for other utterances such as images. Deictic words, or shifters, function as mobile focal points, often within an oppositional structure such as "here", implicitly opposed to "there." Deixis indicates the relative meaning of the utterance, tied to situation of utterance, an "I" in the here-and-now. They have no fixed, referential meaning. They are semantically liquid, albeit not empty. Deixis establishes the point of origin, or deictic center, of the utterance: the "I" who speaks, as well as its point of arrival, the "you" who is spoken to. In this sense – symptomatically indicated by the words "origin" and "arrival" – deixis concerns travel. It establishes the performative aspect of cartography. Indeed, deixis frames the statement in temporal ("now") and spatial ("here") terms.

The deictic essence of cartographic logic that we know from public maps, the signage of "you are here" – to assist you in reading the map – is now conceived in the past tense and in the first person. Or is it? A selfie turns the first person (an "I") into a second ("you" in the mirror) and consecutively a third in fixating the picture of a "he or she." This conflation of identities constitutes a de facto assault on communication. By means of conflation the act makes the usual turn-taking in communicative exchange impossible. There is no position available for a second person who can become a first when it is, or should be, her turn to speak back. But also by fixating the image of "I," the selfie becomes a static product. And much like people virtually waving goodbye to one another by using a screen at the airport, it signals the paradox of non-presence.

Figures 5 and 6. Screenshots of the online portal for waving goodbye at https://www.schipholuitzwaaien.nl and local screen at Schiphol airport.





Source: Nanna Verhoeff.

Secondly, the selfie seems emphatically in the present tense, but this is only instantaneous, and marked thereafter as past when one takes and uploads the image. This, too, makes communication impossible. In real-life navigation, instead, presence is emphatically in the present tense. This is how we can understand such logic of presence and direction bound together. Presence, subjective in essence, is bound to a location. Yet in the act of marking presence this presence becomes void of subjectivity. Thus, if we generalize from this pillar to all selfies, the communication of selfies goes as follows: "I" becomes a "you" during the process of looking in the mirror; once uploaded, the images presents a third person, who becomes an "she or he" to another. This other is the receiver at a distance. Of course, this pillar is meant commercially to engage people in the shopping center while advertising its attraction. Moreover, it demonstrates the logic of the capitalist making of the self into a product. Yet, it goes further than this. Incidentally, this selfie pillar presents a theory of the elusive presence of the subject in the selfie. Thus, it plays with, and flaunts, rather than critiques, the contemporary embrace of these processes in allegedly participatory forms. Elusive as it is, as a location-based medium this micro-architecture affirms what is essentially the logic of the medium at stake.

Seen from the perspective of the selfie pillar, the other example, *The Bridge*, seems to be more layered. The motion-capture Kinect camera confirms through life transmission one person's presence in an environment where she is not present. To be precise, the camera registers the movement of the person in one space, who is then represented on a screen in animation or photographic similarity in another space. With the added process of digital coding, the principle of tele-vision regime of representation is changed from photographic capture to animation.

Figures 7 and 8. Two of the games or "interactives" developed for *The Bridge* that use the motion-capture of the camera with animation.





Source: Dropstuff, 2014.

Nevertheless, your presence in one location influences movements in the other. Your presence, albeit virtual, makes things happen elsewhere. There is a paradox here as well. On the one hand your presence is extended; on the other hand it is denied. The "I" and "you" meet on the screen, both as a third person. Your wave is a representation of a wave. Actually, you stand in for that other place. You are, as such, a representation of "there." As avatars on screen, it is this extension of "you" who walks over that metaphoric bridge and back. It brings into presence, yet also emphatically denies this presence. Presence is qualified by the potential of turning subject positions as traditionally expressed in grammatical persons, around and conflating them, as well as casting presence in the past. This is at least paradoxical. Interfaces position as central the connection between technology and subjects in inter-action. In this sense, interfacing is an affirmation and simultaneous creation of both subjectivity and presence — even if this process is fleeting and paradoxical. This presence is where the transformative performativity of these screens culminates as an intervention in the social domain.

Building connection

This intervention is important because presence is a condition from which we make connections. Yet, as these two cases make clear, presence becomes highly complex in the process of mediation. Location-based media technologies are founded on an organization in which a presence is mapped in relation to a destination – however abstract this destination may be: another location, an interlocutor in communication terms, information or data. That's is why the concept of the cartographic is so central in my argument. This logic that underlies navigational practices makes presence inherently temporary, mobile, and transitory. In the selfie pillar the whole triple-act of posing, shooting and posting shows this mobility. The image of one's presence can be transported, digitally, to online platforms of exchange. A selfie, indeed, is perhaps always-already shared, made for the connection with others, albeit in a somewhat damaged form of communication.

The Bridge with its metaphoric name refers to the foregrounding of building connectivity. With the different forms of screen content, it makes for a playful investigation of what connectivity can be. Communication occurs between subjects in different locations in different representational forms. I

mentioned video streams, animated game spaces or abstract, colorful visualizations. Additionally, as communication between subjects, locations, and regimes of representation, the project has also been embraced for celebrating diplomacy on the occasion of the quadricentennial of Dutch-Swedish relations: an institutionalized and political form of connection.

But connection is never non-committal. To what purpose, or with what result do we connect? A critical question we may ask at this point, when so many projects, technologies and forms of design are being created to engage with the affordances of connection is: this is all great, but to what end? Who benefits, what is being exchanged, what is the transformative power, what is the surplus value of what is created in this process of connecting? The goal of the first project, the selfie pillar, seems straightforward: a playful gimmick for the shopping center to entertain and hence attract more shoppers. Yet in this act, the character of the space has also transformed into a space where one can do things, rather than just walk through it. The one-way connection, however, loses this somewhat playful (and I really do not want to say "empowering") aspect and transforms this into a simple bulletin posted on different social media websites. At first sight, the connections afforded by *The Bridge* seem to allow for more two-way communications. However, it strikes me that there, too, the playful engagement with the screen and location-based technology for interaction is more self-affirming of presence than really making a connection that goes both ways. It is not really a bridge, and the architectural title contributes to obscuring this fact. Indeed, cartography of connections does not guarantee exchange, much less transformation. Worse, connection can become a hollowed-out extension of presence. This amounts to an extension of the first person into all persons; a hugely self-centered worldview or at least, experience.

I have said earlier that location-based subjectivity calls forth a second person, which is the surrounding space transforming constantly under the influence of the subject's displacements through her mobility. Presence and connection, inherent in media processes, are location-based. They take place. This logical necessity is, however, slightly undermined, or at least challenged by projects like *The Bridge*, where the subject becomes an avatar on screen. Perhaps I can say that these projects, and others of this kind, *make* place, and in this sense they are architectural; but they do not necessarily *take* place. Although they are temporary and thus constitute events, their acts of (performative) place-making makes them architectural. The locations themselves where the screens are positioned seem clear, with their extensions to other cities or to online spaces.

Those extensions, however, immediately question the stability of location. Not only its identity can change, as in *The Bridge*; also, as in the selfie pillar, the nature of the location itself changes. Without moving an inch, the surrounding space transforms from a regular shopping center into a place of fun, experiment, and as we have seen, a reconsideration of what the self really is. And from the vantage point of *The Bridge*, the surroundings of the screen become part of the screen space, as well as, in the playful encounters, meeting places.

This is the more easily achieved as these kind of projects tend to be installed on squares and other dense public places. The social ambitions of these projects make use of, and reflect on, the specificity of urban spaces as potentially social spaces, albeit it a sociality that needs to be animated to really occur. In cartographic terms, then, an extension can be seen as another place, an elsewhere, connected to a here, thus establishing a bi-locality. In terms of mobility this elsewhere can become a destination as we upload our selfie to a website. Or, when we cross the bridge to go to another square in a different city. In this

conception, extension covers, but does not replace location. Hence, if the building of connection is an intervention in the social domain, it remains to be assessed, piece by piece, what the meaning or impact of this connection is.

Conclusions: Interface, infrastructure and intervention

But the forms of mobility in media architecture I have mentioned at the beginning are too variegated to be limited to screens set up in urban squares or other spaces of traffic. After all, my two examples, instructive as they are to reconceive of subjectivity and its relation to person, tense and space under an architectural logic, extend space and time by means of screens. The cartographic question about media architecture concerns the way principles of presence, extension and connection, which I find central in navigation, structure and intervene in existing organizations of space. We have encountered these structurings in projects that turned out to have theoretical — and even touch on social-political — implications. The temporality implied in media technologies and their inherent mobility underscores the performativity of design of media and architecture. I see this performativity as inherently also cartographic because of its dependency on mobility. Between architecture as interface — a media-theoretical term — and as temporary object somewhat in-between infrastructure and intervention, the design that allegedly precedes it is actually performed in it; process and product cannot ever be distinguished in any rigorous way.

What, from our perspective in the present, appears as a contemporary innovation, however, also draws attention to aspects of architecture and media, and the mobility this connection entails, in a past that, rather than being long gone, is still with us. Just think of cathedrals, stained glass windows, baroque trompe-l'oeil and architecture, sound and light plays, as Erkki Huhtamo (2009) has reminded us from his media archeological perspective. In similar vein, Uta Caspary (2009) has pointed out the connection between urban screens and media facades with the architectural ornament. To think of these precedents is a good way to relativize the novelty of contemporary interventions, while recognizing the specificity of each. The navigational, between architecture and media in that it is a practice of space, demonstrates the ambition of reflection on and revision of such cultural habits. This is why the question of intervention is important: what are the transformations of public spaces that make the acts of interfacing truly performative?

We have seen the implications of a commercial use of participatory technology. Media cities are being made, built, and shaped by means of technologies and emerging new platforms and new opportunities for shaping surroundings and, through this, urban practices. This speaks to the question of how changes and innovations in infrastructure create interfaces with affordances for connections. This brings me from the theoretical to the critical perspective. The goal of innovation itself, when used in an unreflective manner, supposes improvement of the lived environment, especially in a social context. The chain of innovation to interactive affordances ("we can do things") to participatory empowerment is, however, not self-evident. And not every interface makes an intervention.



Figure 9. The screen is blank, the portal closed.

Source: Dropstuff, 2014.

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